

and animal location applications, including applications for confinement to and/or exclusion from certain areas. Invention embodiments process both local and global MS location requests via a network (e.g., the Internet), wherein the FOMs may be network accessed, and resulting MS location estimates may be routed via the network to location requesting applications. The invention may use one or more FOMs based on: TOA, TDOA, AOA, multipath pattern recognition, statistical analysis, distributed antennas (e.g., for in-building MS location), input from reduced coverage base stations specifically for locating MSs, GPS signals (when such signals are receivable at the MS) and/or input from mobile MS tracking units. MS location accuracy, reliability and coverage are enhanced by using multiple FOMs with location enhancement strategies such as adjusting a FOM's MS estimate (and/or a confidence therein) according to: a past performance of the FOM, and/or context constraints (e.g., snap vehicles to streets, and terrain constraints related to MS location, and velocity).--

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IN THE CLAIMS:

✓ Claim 85, line 61, please delete "transmitted" and insert -- transmitted -- therefor.

✓ Claim 118, line 24, immediately after "second location" please insert -- by --.

✓ Claim 131, line 18, please delete "a two way communication" and insert -- two way communications -- therefor.

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99. (Twice Amended) A method for locating mobile stations at one or more unknown terrestrial locations using wireless signal measurements obtained from transmissions between said mobile stations and a plurality of fixed location terrestrial communication stations, wherein each of said communications stations includes one or more of a transmitter and a receiver for wirelessly communicating with said mobile stations using one of the following wireless transmission techniques: CDMA, TDMA, GSM, AMPS, and NAMPS, comprising:

providing a plurality of requests for location information, each request related to a location of one of said mobile stations, to one or more mobile station location estimators such that when said location estimators are supplied with input data having values obtained from wireless signal measurements obtained via transmissions between said mobile stations and the communication stations, said one or more